

PROBABILITY

Directions : Mark (✓) against the correct answer.

1. In a simultaneous throw of two coins, the probability of getting at least one head is
 (a) $\frac{1}{2}$ (b) $\frac{1}{3}$
 (c) $\frac{2}{3}$ (d) $\frac{3}{4}$
2. Three unbiased coins are tossed. What is the probability of getting at least 2 heads?
 (a) $\frac{1}{4}$ (b) $\frac{1}{2}$
 (c) $\frac{1}{3}$ (d) $\frac{1}{8}$
3. Three unbiased coins are tossed. What is the probability of getting at most two heads?
 (a) $\frac{3}{4}$ (b) $\frac{1}{4}$
 (c) $\frac{3}{8}$ (d) $\frac{7}{8}$
4. In a single throw of a die, what is the probability of getting a number greater than 4 ?
 (a) $\frac{1}{2}$ (b) $\frac{1}{3}$
 (c) $\frac{2}{3}$ (d) $\frac{1}{4}$
5. In a simultaneous throw of two dice, what is the probability of getting a total of 7 ?
 (a) $\frac{1}{6}$ (b) $\frac{1}{4}$
 (c) $\frac{2}{3}$ (d) $\frac{3}{4}$
6. In a simultaneous throw of two dice, what is the probability of getting a total of 10 or 11 ?
 (a) $\frac{1}{4}$ (b) $\frac{1}{6}$
 (c) $\frac{7}{12}$ (d) $\frac{5}{36}$
7. In a lottery, there are 10 prize and 25 blanks. A lottery is drawn at random. What is the probability of getting a prize?
 (a) $\frac{7}{10}$ (b) $\frac{2}{5}$
 (c) $\frac{2}{7}$ (d) $\frac{5}{7}$
8. A card is drawn from a pack of 52 cards. The probability of getting a queen of club or a king of heart is
 (a) $\frac{1}{13}$ (b) $\frac{2}{13}$
 (c) $\frac{1}{26}$ (d) $\frac{1}{52}$
9. One card is drawn from a pack of 52 cards. What is the probability that the card drawn is either a red card or a king?
 (a) $\frac{1}{2}$ (b) $\frac{6}{13}$
 (c) $\frac{7}{13}$ (d) $\frac{27}{52}$
10. From a pack of 52 cards, two cards are drawn together at random. What is the probability of both the cards being kings?
 (a) $\frac{1}{15}$ (b) $\frac{25}{27}$
 (c) $\frac{35}{256}$ (d) $\frac{1}{221}$
11. Two cards are drawn together from a pack of 52 cards. The probability that one is a spade and one is a heart, is
 (a) $\frac{3}{20}$ (b) $\frac{29}{34}$
 (c) $\frac{47}{100}$ (d) $\frac{13}{102}$
12. A basket contains 4 red, 5 blue and 3 green marbles. If 2 marbles are drawn at random from the basket, what is the probability that both are red?
 (a) $\frac{3}{7}$ (b) $\frac{1}{2}$
 (c) $\frac{1}{11}$ (d) $\frac{1}{6}$
 (e) None of these

- 13.** An urn contains 6 red, 4 blue, 2 green and 3 yellow marbles. If two marbles are drawn at random from the urn, what is the probability that both are red?
- (a) $\frac{1}{6}$ (b) $\frac{1}{7}$
(c) $\frac{2}{15}$ (d) $\frac{2}{5}$
(e) None of these
- 14.** A basket contains 6 blue, 2 red, 4 green and 3 yellow balls. If three balls are picked up at random, what is the probability that none is yellow?
- (a) $\frac{3}{455}$ (b) $\frac{1}{5}$
(c) $\frac{4}{5}$ (d) $\frac{44}{91}$
(e) None of these
- 15.** An urn contains 6 red, 4 blue, 2 green and 3 yellow marbles. If four marbles are picked up at random, what is the probability that 1 is green, 2 are blue and 1 is red?
- (a) $\frac{13}{35}$ (b) $\frac{24}{455}$
(c) $\frac{11}{15}$ (d) $\frac{1}{13}$
(e) None of these
- 16.** A box contains 10 black and 10 white balls. What is the probability of drawing 2 balls of the same colour?
- (a) $\frac{9}{19}$ (b) $\frac{9}{38}$
(c) $\frac{10}{19}$ (d) $\frac{5}{19}$
(e) None of these
- 17.** In a class, there are 15 boys and 10 girls. Three students are selected at random. The probability that the selected students are 2 boys and 1 girl, is:
- (a) $\frac{21}{46}$ (b) $\frac{25}{117}$
(c) $\frac{1}{50}$ (d) $\frac{3}{25}$
(e) None of these
- 18.** Four persons are chosen at random from a group of 3 men, 2 women and 4 children. The chance that exactly 2 of them are children, is
- (a) $\frac{1}{9}$ (b) $\frac{1}{5}$
(c) $\frac{1}{12}$ (d) $\frac{7}{9}$
(e) None of these
- 19.** A committee of 3 members is to be select out of 3 men and 2 women. What is the probability that the committee has at least 1 woman?
- (a) $\frac{1}{10}$ (b) $\frac{9}{20}$
(c) $\frac{1}{20}$ (d) $\frac{9}{10}$
(e) None of these
- 20.** A man and his wife appear in an interview for two vacancies in the same post. The probability of husband's selection is $\frac{1}{7}$ and the probability of wife's selection is $\frac{1}{5}$. What is the probability that only one of them is selected?
- (a) $\frac{4}{5}$ (b) $\frac{2}{7}$
(c) $\frac{4}{7}$ (d) $\frac{8}{15}$
(e) None of these

(Direction Q. 21 to 25): Study the information carefully to answer the following questions.

An urn contains 5 red, 3 green, 2 blue and 4 yellow marbles.

21. If two marbles are picked at random, what is the probability that both are blue?

- (a) $\frac{1}{7}$ (b) $\frac{1}{14}$
(c) $\frac{2}{91}$ (d) $\frac{1}{28}$

(e) None of these

22. If three marbles are picked at random, what is the probability that one is green and two are yellow?

- (a) $\frac{3}{14}$ (b) $\frac{2}{91}$
(c) $\frac{9}{182}$ (d) $\frac{7}{545}$

(e) None of these

23. If two marbles are picked at random, what is the probability that either both are red or both are green?

(a) $\frac{5}{7}$ (b) $\frac{5}{14}$

(c) $\frac{1}{7}$ (d) $\frac{1}{14}$

(e) None of these

24. If four marbles are picked at random, what is the probability that none is red?

(a) $\frac{18}{143}$ (b) $\frac{6}{91}$

(c) $\frac{9}{14}$ (d) $\frac{7}{143}$

(e) None of these

25. If three marbles are picked at random, What is the probability that at least one is yellow?

(a) $\frac{2}{7}$ (b) $\frac{4}{91}$

(c) $\frac{27}{143}$ (d) $\frac{7}{143}$

(e) None of these

(Direction Q. 26-28) : Study the given information carefully to answer the following question.

A basket contains 3 blue, 5 black and 3 red balls.

26. If two balls are drawn at random, what is the probability that none of them is blue?

- (a) $\frac{21}{55}$ (b) $\frac{3}{55}$
(c) $\frac{28}{55}$ (d) $\frac{9}{11}$

(e) None of these

27. If 2 balls are drawn at random, what is the probability that one is black and one is red?

- (a) $\frac{2}{11}$ (b) $\frac{8}{11}$

(c) $\frac{9}{11}$ (d) $\frac{3}{11}$

(e) None of these

28. If 3 balls are drawn at random what is the probability that all are black?

(a) $\frac{2}{33}$ (b) $\frac{1}{11}$

(c) $\frac{3}{11}$ (d) $\frac{8}{33}$

(e) None of these

(Direction Q. 29-30): Study the following information to answer the given question.

A box contains 4 Red, 16 Blue, 4 Yellow and 12 Black Balls.

29. One ball is picked up randomly. What is the probability that it is not Blue?

- (a) 0.24 (b) 0.8
(c) 0.3 (d) 0.5

(e) None of these

(a) $\frac{56}{4039}$ (b) $\frac{1}{5}$

(c) $\frac{7}{39}$ (d) $\frac{7}{195}$

(e) None of these

30. Two balls are picked up randomly. What is the chance that both are Red?